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EARTH SHELTERED BUILDINGS
A Brief Guide to Materials in the Library of Congress
Compiled by Diana Niskern

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SCOPE: Earth sheltering is an ancient concept, but interest in its use has increased greatly during the past few years. An earth sheltered building may be partly or entirely underground, or it may only be banked (or "bermed") with earth on one or more sides.

Advantages claimed for earth sheltered buildings include energy conservation, protection, environmental and aesthetic benefits, and reduced maintenance. However, such buildings also impose certain design constraints and construction problems. In addition to these technical considerations, building codes, zoning ordinances, and financing may present obstacles to the prospective builder.

This guide is intended to help the interested reader locate materials on earth sheltered buildings in the collections of the Library of Congress. Not meant to be a comprehensive bibliography, it is designed--as the name of the series implies--to put the reader "on target."

A BRIEF INTRODUCTION

Rawlings, Roger. Why build below? Rodale's new shelter, v. 3, Jan. 1982: 18-22. TH4805.R64 and Pamphlet box*

SUBJECT HEADINGS used by the Library of Congress, under which books on earth sheltered buildings can be located in most card, book, and online catalogs, include the following:

EARTH SHELTERED HOUSES (Highly relevant)
UNDERGROUND AREAS (More general)
UNDERGROUND CONSTRUCTION (More general)

GENERAL TEXTS

Campbell, Stu. The underground house book. Charlotte, Vt., Garden Way Pub., c1980. 210 p. TH4819.E27C35

*Available in the reference collection, Science Reading Room

☆U.S. Government Printing Office: 1981—361-276/2910

READEX FICHE best copy available

LC 33.10:

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Bibliography: p. 198-203.

La Nier, Royce. Geotecture: subterranean accommodation and the architectural potential of earthworks. South Bend, Ind., c1970. 72 p. TA712.L3

Martindale, David. Earth shelters. New York, Dutton, 1981. 148 p. TH4819.E27M37 1981
Bibliography: p. 135-143.

Minnesota. University. Underground Space Center. Earth sheltered housing design: guidelines, examples, and references. Prepared for the Minnesota Energy Agency. New York, Van Nostrand Reinhold, 1979. 318 p. TH4819.E27M56 1979*
Bibliography: p. 301-310.

Roy, Robert L. Underground houses: how to build a low-cost home. New York, Sterling Pub. Co., c1979. 128 p. TH4819.E27R69
Includes bibliographical references.

Scott, Ray G. How to build your own underground home. How to build adobe houses--etc. Blue Ridge Summit, Pa., TAB Books, c1979. 256, 256 p. TH4819.E27S34 1979b
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----- Underground homes: an alternative lifestyle. Blue Ridge Summit, Pa., TAB Books, c1981. 400 p. TH4819.E27S35

Sterling, Ray, Roger Aiken, and John Carmody. Earth sheltered housing: code, zoning, and financing issues. Prepared by the Underground Space Center, University of Minnesota. Washington, U.S. Dept. of Housing and Urban Development, Office of Policy Development and Research; For sale by the Supt. of Docs., U.S. Govt. Print. Off., 1980. 141 p. TH4819.E27S73
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Wampler, Louis. Underground homes. Rev. ed. Gretna, La., Pelican Pub. Co., 1980. 121 p. TH4819.E27W35 1980

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Ahrens, Donna, Tom Ellison, and Ray Sterling. Earth sheltered homes: plans and designs. Underground Space Center, University of Minnesota. New York, Van Nostrand Reinhold Co., c1981. 125 p. TH4819.E27A35

Chalmers, Larry S., and Jeremy A. Jones. Homes in the earth. San Francisco, Chronicle Books, c1980. 112 p. TH4819.E27C48

Frenette, Edward R. Earth sheltering: the form of energy and the energy of form. Editor, T. Lance Holthusen; author, Edward R. Frenette for the American Underground-Space Association, in conjunction with their 1981 design competition. New York, Pergamon Press, c1981. 245 p. TH4819.E27E4 1981

Sterling, Ray, John Carmody, and Gail Elnicky. Earth sheltered community design: energy-efficient residential development. Underground Space Center, University of Minnesota. New York, Van Nostrand Reinhold, c1981. 270 p. TH4819.E27S72
Bibliography: p. 251-262.

Swayze, Jay. Underground gardens & homes: the best of two worlds, above and below. Hereford, Tex., Geobuilding Systems, 1980. 136 p. TH4819.E27S95

Wells, Malcolm. Underground designs. Andover, MA., Brick House Pub. Co., 1981, c1977. 87 p. NA2542.7.W44 1981
Reprint of the ed. published by the author, Brewster, MA.

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Keehn, Pauline A. Earth-sheltered housing: an annotated bibliography and directory. Chicago, CPL Bibliographies, 1981, c1980. 61 p. (Council of Planning Librarians. CPL bibliography, no. 43)
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Krammer, Arnold. German underground factories and refineries during World War II. Monticello, Ill., Vance Bibliographies, 1980. 8 p. (Architecture series: bibliography, A-386) Z5853.U53K7

Moe, Christine. Underground space: a new resource. Monticello, Ill., Vance Bibliographies, 1981. 12 p. (Public administration series: bibliography, P-768) Z5853.U53M63

Weaver, Rose. Bibliography on underground space for residential, commercial, and industrial buildings. Monticello, Ill., Vance Bibliographies, 1980. 25 p. (Architecture series: bibliography, A-191)
Z5853.U53W4

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Alternatives in energy conservation: the use of earth covered buildings: proceedings of a conference held in Fort Worth, Texas, July 9-12, 1975. Editor, Frank L. Moreland. Sponsored by University of Texas at Arlington, Texas. Washington, National Science Foundation;

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"NSF-RA-760006." TA712.A47
Bibliography: p. 317-353.

Earth covered buildings: technical notes. Prepared for the Department of Energy by the University of Texas at Arlington. Washington, The Dept.; Springfield, Va., available from the National Technical Information Service, U.S. Dept. of Commerce, 1979. 272 p.
TH4819.E27E38
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Earth shelter, performance & evaluation: proceedings. L. L. Boyer, editor. Stillwater, Okla., Architectural Extension, Oklahoma State University, 1981. 297 p. TH4819.E27E393
Proceedings of the Earth Sheltered Buildings Conference on Performance and Evaluation held in Tulsa, Okla., Oct. 16-17, 1981. Sponsored by Architectural Extension, Oklahoma State University in cooperation with American Underground-Space Association and Earth shelter digest.

Earth sheltered building design innovations: proceedings. L. L. Boyer, editor. Stillwater, Okla., Oklahoma State University, 1980. 244 p. in various pagings. TH4819.E27E394
"Presented at the 1st Earth Sheltered Building Design Innovations Conference at the Skirvin Plaza Hotel, Oklahoma City, Oklahoma, April 18 & 19, 1980."

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The potential of earth-sheltered and underground space: today's resource for tomorrow's space and energy viability: proceedings of the Underground Space Conference and Exposition, Kansas City, Missouri, June 8-10, 1981. New York, Pergamon Press, c1981. 503 p.
TH4819.E27U5 1981
"Sponsored by the American Underground-Space Association."

ABSTRACTING and INDEXING SERVICES that index relevant journal articles and other literature are listed below. Some suggested terms are given as aids in searching.

Applied Science & Technology Index (1913-) Z7913.I7*
See: Underground Construction
Underground Structures

Architectural Index (1950-) Z5941.A66
See: Underground Architecture

Architectural Periodicals Index (1972/73-) Z5941.A69
See: Underground Buildings

Art Index (1929-) Z5937.A78
See: Underground Construction
Cave Architecture

Business Periodicals Index (1958-) Z7164.C81B983
See: Underground Construction

Energy Information Abstracts (1976-) TJ163.2.E482*
See: Underground Buildings

Energy Research Abstracts (1975-) Z5853.P83U544b*
See: Earth-Covered Buildings
Earth Berms

Engineering Index (1884-) Z5851.E62*
See: Buildings--Underground

Magazine Index (1977-) uncataloged
See: Underground Construction
Earth Sheltered Houses
Earth Houses

Readers' Guide to Periodical Literature (1900-) AI3.R45
See: Houses, Underground
Underground Structures

JOURNALS that often contain articles on earth sheltered buildings include

Alternative Sources of Energy TJ163.2.A46
Earth Shelter Digest & Energy Report TH4819.E27E39
The Mother Earth News AP2.M7919
Popular Science Monthly AP2.P8
Rodale's New Shelter TH4805.R64
Underground Space TA712.U47

Note: Consult reference librarian for location of abstracting and indexing services in the Science Reading Room.

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Brown, G. Z., and Barbara-Jo Novitski. Climate responsive earth-sheltered buildings. Underground space, v. 5, Mar./Apr. 1981: 299-305. TA712.U47

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Dean, Andrea O. Underground architecture. AIA journal, v. 67, Apr. 1978: 34-51. NA1.A326

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Pittman, Scott, Wayne Pittman, and Gail Haggard. Adobe mixed with earth houses. Earth shelter digest & energy report, no. 13, Jan./Feb. 1981: 11-14. TH4819.E27E39

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Thompson, Robert. Air quality maintenance in underground buildings. Underground space, v. 1, Aug. 1977: 355-364. TA712.U47

Wade, Herb. Earth sheltering's newest technique. Rodale's new shelter, v. 1, Oct. 1980: 44-48. TH4805.R64

Wirth, Thomas E. Landscape architecture above buildings. Underground space, v. 1, Aug. 1977: 333-346. TA712.U47

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Government Reports Announcements & Index (1946-) Z7916.G78*
See: Earth-Covered Buildings
Earth-Covered Structures
Underground Facilities
Underground Structures

SELECTED TECHNICAL REPORTS, sold by the National Technical Information Service, Springfield, Virginia 22161, include the following:

Earth shelter 2. Collected papers presented at Earth Sheltered Housing Conference & Exhibition--1, Leamington Hotel, Minneapolis, MN, April 9, 10, 11, 1980. St. Paul, Underground Space Center, 1980. 236 p. CONF-800438**

McDonald, James E., and Tony C. Liu. Concrete for earth-covered structures. Vicksburg, Miss., Army Engineer Waterways Experiment Station, Sept. 1978. 31 p. AD-A061469**

Shapira, H. B., and P. R. Barnes. An earth integrated design: office dormitory facility. Oak Ridge, Tenn., Oak Ridge National Laboratory, 1980. 21 p. CONF-800438-1**

Szydlowski, Richard Felix. Analysis of transient heat loss in earth-sheltered structures. Ames, Iowa, Ames Laboratory, U.S.D.O.E., Iowa State University, Sept. 1980. 213 p. (DE81 027292) IS-T-932**

Zaccor, James V. An empirical study of earth covered schools in Oklahoma. Redwood City, Calif., Scientific Service, Nov. 1979. 54 p. AD-A082508**

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Selected papers from Proceedings of the Western SUN 1980 Solar Update, September 24-26, 1980, Salt Lake City, Utah. Available from National Technical Information Service, Springfield, Va. 22161 as CONF-800995.

ADDITIONAL SOURCES OF INFORMATION

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